DOCUMENT RESUME

ED 267 275 CE 043 920

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TITLE Validation of the Benefit Forecasting Method: Organization Development Program to Increase Health Organization Membership. Training and Development Research Center, Project Number Eleven.
INSTITUTION Minnesota Univ., St. Paul. Dept. of Vocational and Technical Education.
PUB DATE Dec 85
NOTE 41p.; For related documents, see ED 260 215-222.
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Adults; Behavioral Science Research; *Cost Effectiveness; Health Personnel; *Health Services; *Organizational Development; Planning; *Prediction; *Predictive Measurement; Program Effectiveness; *Research Methodology; Research Tools; Research Utilization
IDENTIFIERS *Benefit Forecasting Method

ABSTRACT

This project is the sixth in a series of studies designed to validate the Training and Development Benefit Forecasting Method (BFM) sponsored by the Training and Development Research Center (TDRC) at the University of Minnesota. The purpose of this study was to validate the BFM's ability to forecast the benefits of an organization development program for salaried employees in a health maintenance organization. The focus of the project was on a 1983 organization development (OD) program including initial training for 12 patient service specialists. The program lasted 12 months. The goal of the program was to retain and increase memberships in the health organization. The overall research method had three major phases of activities. They included forecasting, collecting actual data, and data analysis. The actual two-year benefit, after costs, resulting from the OD program was more than $5,790,410. Using the BFM, each of the forecasters was able to forecast accurately a large financial benefit from investing in the organization development program. Their forecasts, which ranged from $138,800 to $3,900,000, were significantly lower than the actual financial benefit. (Author/KC)

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TRAINING AND DEVELOPMENT RESEARCH CENTER

Project Number Eleven

VALIDATION OF THE BENEFIT FORECASTING METHOD: ORGANIZATION DEVELOPMENT PROGRAM TO INCREASE HEALTH ORGANIZATION MEMBERSHIP

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December 1985

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Abstract

This project is the sixth in a series of studies designed to validate the Training and Development Benefit Forecasting Method (BFM) sponsored by the Training and Development Research Center (TDRC).

The purpose of this study was to validate the BFM's ability to forecast the benefits of an organization development program for salaried employees in a health maintenance organization. The focus of the project was on a 1983 organization development (OD) program including initial training program for 12 patient service specialists. The program lasted twelve months. The goal of the program was to retain and increase memberships in the health organization.

The overall research method had three major phases of activities. They included forecasting, collecting actual data, and data analysis. The actual two-year benefit, after costs, resulting from the OD program was over $5,790,410. Using the BFM, each of the forecasters was able to accurately forecast a large financial benefit from investing in the organization development program. Their forecasts were significantly lower than the actual financial benefit. Their forecasted benefits ranged from $138,800 to $3,900,000.

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Introduction

This project is the sixth in a series of studies designed to develop and validate the Training and Development Benefit Forecasting Method (BFM) sponsored by the Training and Development Research Center (TDRC). These validation efforts have been conducted in several firms and have focused on a variety of training and organization development programs. The original model was presented by Richard A. Swanson and Gary D. Geroy in a paper, Economics of Training (1983).

The purpose of this study was to validate the BFM's ability to forecast the benefits of an organization development program for employees in a health maintenance organization.

The BFM is a tool designed for predicting performance value, costs, and benefits of training programs. The basic model is that the net performance value gain resulting minus the cost reflects the benefit. The premise is that forecasted economic benefits of proposed human resource development programs can then be utilized by organizations in making sound investment decisions.

An earlier validation of the BFM for technical training in a manufacturing setting describes the BFM's Net Performance Value Calculation Work Sheet for determining the economic value of performance (Geroy & Swanson, 1984).

Organization and Program

The research for this project was conducted at a health organization (HO). The HO serves over 215,000 members at 22 medical and dental centers located throughout a metropolitan area. While specific services at a given location vary slightly, all centers offer a general health maintenance program. The HO provides benefits to members on a prepaid basis. Memberships can be purchased by individuals or by companies as part of an employee benefit package. There are different types of memberships including individual, group and family.

The HO is part of the metropolitan health care industry. This industry is both complex and competitive. The HO is one of ten health maintenance organizations serving the area. Forty percent of the health care market in this metropolitan area belongs to health maintenance organizations.

The HO approved the conduct of this research in their organization for several reasons. First, it provided the individuals in the organization an opportunity to learn to use the BFM. This project also provided the organization the opportunity to evaluate a program using external researchers. Finally, the cooperating HO has a general commitment and interest in establishing working links with academia.

The scope and focus of the research project was determined by staff from the Training and Development Research Center (TDRC) and the HO's Manager of Staff and Organization Development. Agreement was reached stipulating the

responsibilities of the HO and the TDRC in conducting the research as well as the use of information gathered in carrying out the research.

It was agreed that the focus of the project would be on a 1983 organization development (OD) program. The Manager of Staff and Organization Development had originally recommended the OD program to the HO and had also coordinated its implementation.

The OD intervention occurred over a two-year period and included:

1. a series of activities which established and facilitated the work of the patient services working group. This group issued its final report suggesting many changes in August of 1983,

2. an organization development program involving all HO managers. It focused on team building, sensitization to patient service, and building an awareness that patient service is everyone's responsibility,

3. hiring of 12 patient services specialists (PSS); and

4. implementing the recommendations of the patient services working group. This step included training in patient relationships for all staff.

The PSS positions were created as a result of the OD program detailed above. These positions were created so there would be one individual at each clinic whose specific focus was patient service. The expectation was that the PSS would be a source for patient information on the system and also that the PSS would provide the organization with information about patient concerns.

The PSS's were hired and began three weeks of training in January 1984. The training was designed so the PSS spent part of the training time at their

assigned clinic gaining on-the-job experiences about that specific environment and part of the time in classroom training which included formal presentations, role playing, case studies, meeting with key people to clarify roles, and discussions of the clinic experiences.

Research Design

The overall research method had three major phases of activities. They included forecasting, gathering actual data, and data analysis.

The first phase, forecasting, involved gathering the input data the forecasters would use to develop their predictions, identifying individuals who would serve as forecasters, instructing them in the methodology and use of the BFM, and having forecasters apply the BFM.

The second phase focused on gathering actual performance data, establishing the organization's value for this performance, and auditing the actual costs associated with the programs under investigation.

The final phase, data analysis, focused on comparing and analyzing actual versus forecast data and developing integrations of the final outcomes. These phases are summarized graphically in Appendix A.

Implementation

In the process of implementing the research project, several issues and decisions were considered important to the successful completion of the project. They are summarized by activities and issues as follows:

Explaining the BFM.

The explanation of the BFM to the HO key decision makers included the model definitions, and the general procedures (See Appendix A). Their reaction was positive. However, they had two concerns about using the BFM on the PSS project.

The first concern was about how costs for the BFM would be assigned when the organization is unique and has its own method of assigning costs. This question was resolved because the BFM uses the costs assigned by the organization in its normal accounting procedures.

The second concern was whether the outputs of the OD program could be identified and valued, especially because the program was instituted at a time when many changes were occurring in the organization and because the outputs are not concrete. The researchers determined that it would be appropriate to use data the organization had generated in determining expected outputs and the associated values of salary, amount and type of training provided, impact of the placement of the PSS position on the organizational chart, and performance

evaluations. The BFM then would provide the vehicle for organizing and examining the costs and benefits in a numerical format.

Additionally, the researchers felt comfortable that both the outputs of the PSS position, and the value that they were given for this research by key people within the organization, had high face validity throughout the organization.

Identifying the forecasters.

Deciding who would identify the forecasters was a question raised by the HO. It was determined that the HO could best identify the organization specific roles which would normally be involved in a decision making process of this type. The forecasters identified by the HO held various positions within the organization. They included the corporate training specialist, the manager of member services and a clinic manager.

Gathering the data that forecasters needed to make their predictions.

The researchers determined that the forecasters would need to know the factors influencing the HO in 1983 and the specifics of the proposed OD program. The factors influencing the HO in 1983 included variables that the organization had identified as causing membership loss. These variables are high cost, hospital location, patient services and the country's recession.

The researcher learned that the proposed OD program consisted of five parts:

1. a process consultation using an external consultant,

2. problem solving and team building to have everyone understand that patient services is everyone's responsibility,

3. recruiting and hiring patient services specialists,

4. training to give the stimulus of the pilot program,

5. training on the elements of effective service.

Identifying a data source for the PSS position outputs.

The organization identified three individuals who had served as PSS since the inception of the program.

Determining the actual outputs.

Some PSS were concerned that their personal performance was being evaluated through the research effort. The researchers addressed this concern by explaining that top management valued the PSS work and that the research was being conducted to validate the method and was not to function as an employee performance evaluation. Also, in this instance, the method was not being used to measure individual outputs, but rather to look at the effect of the PSS positions. This meant that the outputs of those PSS interviewed would be summarized before being presented to management.

One PSS expressed interest in obtaining the information gained from the research for use in future salary determinations. However, sharing the

information in that way would not have been in compliance with the research agreement between the TDRC and the HO.

After these initial concerns were resolved, the PSS identified their outputs for the past two years. The PSS had some difficulty in remembering their outputs. A primary reason for this was that the outputs vary in kind and quantity. PSS react to immediate needs of the clients, staff or organization to negotiate solutions that meet the needs of all interested parties.

The aspects of the job most readily remembered were the unusual (critical incident) experiences rather than the routine duties. The PSS, however, were able to identify the routine outputs after subsequent discussions with researchers. The researchers' study of written materials associated with the position (i.e., job descriptions) and observations of the PSS performing tasks also contributed to identifying the PSS outputs.

The PSS outputs fit into three categories: Answering questions and complaints, making suggestions for organizational change, and facilitating communications.

Determining financial worth of actual PSS outputs.

The direct measurements and indirect benefits of each output were identified by the researchers and verified by the Manager of Staff and Organization Development (See Appendix B). Direct measures reflect the bottom line—either in cost, net members, or the physician's comfort level with the PSS work.

These are the direct results from the OD program and from the training. Indirect benefits are secondary changes.

Determining how the organization expected to value the actual outputs of the PSS and the OD program.

This step examined what the outputs were expected to accomplish when the programs were implemented. Were the outputs expected to satisfy internal political needs, external political needs, a productivity need or some other need? The key decision makers of the organization agreed that improving the quality of the product was the expected accomplishment of both the OD program and the PSS training. They also agreed that this accomplishment would be expected to improve the net membership of the organization.

The potential benefits from decreasing costs and increasing the physician's comfort level with PSS work was deemed to be insignificant when compared to the potential benefits associated with improving the quality of the product.

The Vice President of Operations was asked to value the PSS training and the OD program. He felt that he needed to know the number of oral complaints, the number of written complaints, the issues and lapses for the years being studied, and the salaries and benefits of the PSS. He provided the names of the individuals who had this information. In reviewing the outputs of the PSS and the benefits of the OD program, the Vice President of Operations determined that the bottom line measure of effectiveness of the changes was the net

membership. He suggested that the best person to value the changes was the Manager of Marketing because he had the best handle on issues and lapses.

The Vice President of Operations was asked about the value of membership. He provided the information that members paid $150 per month for a family membership and $50 per month for an individual membership.

There was no problem in obtaining the information suggested by the Vice President of Operations until the information on lapses and issues was requested. At this time, the organization determined that certain information was confidential. Specifically, the researchers could not have access to the lapse and issue information. Further, the Manager of Marketing was not willing to value the changes until the confidentiality issue was resolved.

It was determined that the researcher did not need to know the HO membership lapse and issue information, but only the net membership change caused by the OD program and the PSS training. It was agreed that the acceptable solution was to provide the researchers the net membership change as data for the research calculations.

Data Gathering

Preliminary testing of the BFM on the HO projects.

The Manager of Staff and Organization Development agreed to serve as a preliminary forecaster and to work through the Net Performance Value Work Sheet (Appendix C) and the Cost Analysis Work Sheet (Appendix D) for both the training and the OD programs. This initial forecast served several purposes including verifying that all the information needed to apply the BFM had been collected, and providing an opportunity to identify the difficulties the forecasters might have in applying the BFM. Additionally, it gave the Manager of Staff and Organization Development an opportunity to develop greater understanding of the BFM in order to be a better resource for the forecasters who would apply the BFM.

The Manager of Staff and Organization Development had little difficulty in using the Cost Analysis Work Sheet to predict the costs of the training and the costs of the OD program. One concern was that the manager tried to recall actual costs rather than predict them. The Manager of Staff and Organization Development had some difficulty in using the Net Performance Value Calculation Work Sheet. He performed separate calculations for the OD and training components of the program.

General difficulties and issues raised by the Manager of Staff and Organization Development regarding specific items on the Net Performance Value Calculation Work Sheet are outlined below.

Item (a) - There was some question about whether negative numbers could be used because one of the goals was fewer membership lapses annually. The goal could be indicated by a lower negative number. However, the researchers suggested that the change be calculated on net members. That is: Determine what the net membership based on issues and lapses would have been without the OD program, then determine what the net membership based on issues and lapses is now. Compute the difference between the net memberships. Subtract from this figure the impact of other changes that occurred at the same time.

i.e.,

A.	Current loss	100	the difference of 100 is attributed to all
B.	Past loss	200	the changes that occurred

While these figures were for demonstration purposes only, it was acknowledged that other factors such as changes in competition, government regulation could influence the difference between A and B.

Also, in the initial forecast, the total change expected was put in this space, rather than the per PSS change. It was also difficult to separate the impact of hiring the PSS from the impact of training the PSS.

Item (b) - There was an attempt to put a number in this space. Also, there was some difficulty in determining the impact of the change on the product (the bottom line).

Item (c) - The number used was the monthly mean price of individual and family memberships. This figure provides the monthly revenue.

Item (d) - The length of time chosen for the OD program was two years. OD program time then went from May 1983 to May 1985. The length of time chosen for training was three weeks, January 4-26, 1984.

Item (e) - This question is confusing in the context of this research. As an alternate the question "What was the level of worker performance prior to the program?" works better.

Item (f) - The term workers is confusing and was taken to mean trainers. Changing the word workers to trainees improves understanding.

Item (g) - There was no problem with this question for the calculation of the OD program. There was a question on the PSS training calculation because while the trainees did not produce, the organization produced at the old rate.

Item (h) - The length of time being evaluated was chosen to be two years for both PSS training and the OD program. The time for the OD program went from August 1983 to August 1985. The PSS training evaluation went from January 1984 to January 1986. While the PSS training evaluation time was appropriate to the forecaster, it could not be used in the research because it extended beyond the research time and would have required the valuers to make predictions rather than deal in hard data. The evaluation period for training was adjusted to January 1984 to May 1985.

Item (i) - No problems.

Item (j) - No problems.

Item (k) - No problems.

Item (l) - No problems.

In summary, the problems uncovered in this initial test included (a) that the wording on the forms was specific to training and needed to be more generalized to address an OD program; (b) that the Manager of Staff and Organization Development felt that the organization would be more comfortable if the value of each unit were based on net rather than gross income; (c) that there was some difficulty in separating PSS training benefits from OD program benefits; and (d) that the length of time chosen for the evaluation had to be restricted to fit the research.

The value used in the initial calculation was the average amount that members prepay for their health care. This figure did not include a deduction for the costs of the care.

The Vice President of Operations, when asked about the dollar value of members, suggested that the net revenue would not be the correct figure to use for the value. The researcher suggested that net revenue divided by membership or medical dues divided by membership multiplied by 80 percent might provide a more accurate picture. The Vice President of Operations surveyed these figures and computed the marginal revenue per member per year by using the average number of individuals in a family contract, the average number of encounters per member, the cost per encounter, and the annual amount paid by each member. The Vice President of Operations provided the researcher the amount of the marginal revenue per year per member.

Forecasting the performance value and costs and computing the benefits of the OD program.

The HO chose three individuals to implement the forecasting method. Prior to the forecasting, the researcher met with each individual to provide the base of information on the factors affecting the HO in 1983, the proposed OD program, and the use of the BFM.

The researcher explained that the forecaster was expected to use the BFM to choose between two options. One option was to initiate the proposed OD program and the other was to continue the existing circumstances.

Each forecaster had a different perspective on continuing the existing circumstances. One determined that with this option the organization would need to hire and train 12 patient services specialists. The forecaster expected this option to lead to measurable improvement. Another forecaster determined that with the second option, the organization would provide no training. Poor communication would continue resulting in clients allowing their memberships to lapse, increased numbers of complaints with their attendant costs and increased external referrals and hospitalizations.

The third forecaster saw that continuing the existing circumstances would occur when the organization assumed that the problems were caused by external forces over which the HO had little control. With this option, the HO would train the receptionists because it perceived them as the problem staff group, but would not expect a major impact from improved performance.

Each forecaster used the Net Performance Value Calculation Work Sheet (Appendix C) to forecast the performance value of each option. They then used the Cost Analysis Work Sheet to predict the cost of each option. Each forecaster then computed the benefit for both options, compared the benefits of the options and chose the option that offered the greatest economic benefit. Data determined by the forecasters in completing the Net Performance Calculation Work Sheet is summarized in Table 1.

Each forecaster chose a different unit of measure to describe the performance. One forecaster chose membership in the HO, one forecaster created ordinal scales based on several measures of patient services and one forecaster created an ordinal scale based on performance standards effectiveness. Each forecaster used the same unit of measure to describe the performance in both options.

In assigning dollar value of units, the forecasters who constructed ordinal scales assigned different dollar values to the proposed OD program and the option of continuing the existing circumstances. Each forecaster used similar reasoning that their respective scale was based on a measure of performance. The choice of continuing the existing circumstances would indicate that the organization did not value this measure as highly.

The forecasters assigned different amounts of time to reach the goal for the two options. All forecasters indicated that the time to reach the goal would be longer with the proposed OD program.

In determining how many workers would participate in the training, all the forecasters decided that the proposed OD program would involve the entire organization and that the change should be measured for organization.

For the option of continuing the existing circumstances one forecaster believed that the entire organization would participate, one forecaster felt that the group of receptionists would be trained, and one forecaster believed that patient services specialists would be hired and trained.

Two of the forecasters had no difficulty in performing the calculations of the work sheet. One forecaster had some difficulty because he recognized that the HO's memberships are sold annually. The work sheet is structured in a way that assumes that the product is a one sale item.

The forecasters were able to predict the cost of each option using the Cost Analysis Work Sheet. Two forecasters were unfamiliar with the training sequence outlined on this form and needed some additional information about the type activities that would be expected to occur at each step.

The data from the forecasts are summarized in Table 1. The forecasted benefit for the OD program ranged from $138,000 to $3,900,000. The benefit range for the No OD option, continuing the existing circumstances, is - $1,773,000 to $807,500. All forecasters chose the option of the proposed OD program as the better economic choice over the existing business condition. In other words, each forecaster projected a financial benefit to the HO if it invested in the OD program (Table 1).

TABLE 1
Comparison of Individual Benefit Forecasts

Forecaster	A		B		C	
Option	OD	No OD	OD	No OD	OD	No OD
Forecasted Performance Value	$155,500	$62,400	$2,812,500	$ -750,000	$22,500,000	$812,500
Forecasted Cost	27,700*	14,000*	211,500	1,023,000	18,600,000	5,000
Forecasted Benefit	$138,800	$48,400	$2,601,000	-1,773,000	$3,900,000	$807,000

*excludes salary cost

Determining the actual value of the OD program.

After the confidentiality issue was resolved, the Manager of Marketing agreed to determine the actual value of PSS training in terms of lapses and issues. Some of his concerns and difficulties concerning the research effort were expressed and are summarized below.

1. It is difficult to ascertain the values of the PSS training and the OD program.

2. It is difficult to separate the values of PSS training and the PSS hiring that is part of the OD program.

3. The values reached will only be as good as the assumptions on which the values are based.

4. It is important to know what the stakeholders are getting out of the research effort, i.e., would the training and development department use this information to get more money?

5. There were many changes that had occurred which affected lapses and issues including competition, new buildings, changed hours, and these changes are interactive with the changes caused by PSS training and the OD program.

6. This research is not a good testing of the BFM. (It should be tested in a situation involving two groups of people where all the variables are controlled except the variable being tested.)

7. There is a great deal of difficulty in predicting monthly sales because of the highly complex market place with many confounding factors; so, how can PSS training be valued?

8. It is difficult to place a value on complaints without knowing the categories of complaints and establishing a weight for each category.

9. The size of the project is very large to be valued and must be narrowed down.

10. The amount of time required of him or his department that assigning value would take. It was predicted that it would take at least two hours to assign the superficial value and 10 hours to segment the value of this program versus other things occurring at that time.

11. The impact of PSS training on issues is minimal (probably about 1/10 of 1 percent), maybe the research should focus on the cost saving of having the

PSS work with patients rather than more expensive staff doing this work with patients.

12. The value of PSS as catalysts for change can only be made after each change is identified and valued.

13. Change at the HO is supported by a variety of sources including PSS input, physician input, input from other clinic staff, patient satisfaction, member services department, sales representatives, the patient survey, market research, consultants, student interns and staff input. Each of these sources has a value greater than one. It would be necessary to value each change and determine the value of the PSS input.

The researcher addressed the Manager of Marketing's concern about the difficulty of separating the effects of hiring the PSS from the effects of training the PSS by agreeing that the PSS training would not be measured separately, but instead would be measured as part of the OD program.

Also, the researcher provided the Manager of Marketing the additional information he needed about the OD program: The Outputs of the OD Program (Appendix E) and the Steps of the OD Program (Appendix F).

The Manager of Marketing valued the OD program by first determining the assumptions upon which the estimates are based. The first assumption is that the major impact of the OD program is on lapses. The second assumption is that the impact will grow over time. The negative side is that as the market place becomes more competitive, the impact will have to grow. Over time, further improvements will be needed. The Manager of Marketing recognized that the

estimate he was making could be more refined by having more data on why members join (issues) and why they leave (lapses).

Also, the Manager of Marketing determined that the outputs of the OD program identified in Appendix E are really activities (eg., improving signs in the clinics). He pointed out that it is difficult to value the activities when the product of the activity is not specifically identified.

The Manager of Marketing also indicated that the health care field is currently very competitive. It would be easier to make projections in a more stable, less complex environment.

The steps he used in determining the net membership gained for the OD program are:

1. He determined the net number of lapses and the net number of issues for each year.

2. He divided the outputs of the OD program into the three categories of personal services, service access, and promotion.

3. He determined the other elements impacting on net change.

4. He determined the weight of each category as it relates to net membership. The weights of the categories for each year were computed separately.

5. He verified that the total amount assigned for each year was equal to 100 percent.

6. He computed the membership for lapses and for issues for each year.

7. He added the figures determined in the previous step to arrive at the total net membership changed by the OD program.

Using these steps, the Manager of Marketing determined that in the first year, the OD program accounted for six percent of the change in issues and eight percent of the change in lapses. And, in the second year, it accounted for ten percent of the change in issues and 14 percent of the change in lapses. He determined the total memberships that were gained by the OD program and the total memberships that were saved in the lapses category during the two year period. These totals were multiplied by the marginal revenue per member per year to determine the performance values of $3,137,760 for the memberships gained by the organization and $4,314,240 for memberships that were saved by the OD program. These figures are illustrated in Table 2.

TABLE 2
Performance Values of the OD Program

	VP of Operations		Mgr of Marketing		
	Issues	Lapses	Issues	Lapses	Averages
Members by Category	0	14,000	8,716	11,984	
Net members from OD Program	14,000		20,700		17,350
Marginal revenue per member per year	360	360	360	360	360
Sub-total	0	$5,040,000	$3,137,760	$4,314,240	
Performance Value Of OD Program	$5,040,000		$7,452,000		$6,246,000

The final number of net members was slightly higher than the Manager of Marketing expected it to be. The weights assigned to issues were higher than originally anticipated. This higher weight was attributed to the fact that the changes enabled the sales people to talk to potential members about the HO's commitment to serving members better.

The weights assigned to lapses were lower than expected. This is because the OD program impacted only those members who voluntarily left the system.

The Vice President of Operations also agreed to value the OD program. He reported that a recent survey indicated that a large percent of the HO members felt that the service and care had been improved as a result of perceived changes at the HO. Based on this survey information, he estimated that a total of 14,000 members would have been lost over the two years if the OD program had not occurred. The performance value of these lapses was $5,050,000. He also felt that the OD program had no impact on issues and therefore did not include new memberships in his performance values. (See Table 2.)

Determining the actual costs of the OD program.

The Manager of Staff and Organization Development determined the actual costs of the OD program using the Cost Analysis Work Sheet. The actual costs for PSS training portion of the OD program were determined to be $24,365. PSS salaries and benefits for two years were $384,100. The actual costs for the managed group process portion of the OD program totaled $47,125. The total actual cost of the OD program, including PSS salaries, was $455,590.

Data Analysis

In comparing the option of the OD program with the option of maintaining the existing quality of customer service, the OD program was the preference of all the forecasters based on their forecasted benefits. Furthermore, these human resource investment decisions based on the forecasts were identical to the decisions one would make given the actual performance value, cost, and benefit data.

On the actual data side, there was also consistency in the values determined by the Vice President of Operations and the Manager of Marketing for the OD program's impact on membership lapses in the BO. The performance value of lapses impacted by the OD program were determined to be $5,040,000 and $4,314,240 respectively. Beyond these, the Manager of Marketing also valued the OD program's impact on new memberships issued. The OD program's impact on new memberships was valued at $3,137,760. The cost of the program ($455,590) is subtracted from the total performance value of the OD program (lapses and issues) to determine the financial benefit of $5,790,410. The valued benefits are shown in Table 3.

TABLE 3
Actual Benefits of OD Program

	VP of Operations	Mgr of Marketing	Average
Total Value Assigned to OD Program	$5,040,000	$7,452,000	$6,246,000
Actual Cost	455,590	455,590	455,590
Benefit	$4,584,410	$6,996,410	$5,790,410

While the BFM did lead the forecasters to choose the financially correct option of implementing the OD program, it failed to lead them to the magnitude of the benefit. All forecasters underestimated the financial benefit of the OD program.

In applying the BFM, the forecasters analyzed the OD program using the tools and knowledge consistent with their background and jobs. For example, the forecaster with the sociology background applied knowledge of the organization's internal and external forces to forecast performance value. The forecaster who dispersed benefit payments as part of her job assigned a high cost to the option of continuing the existing circumstances since she recognized that extra benefits would be paid as a result of poor member communications.

The managers who determined the actual impact and performance value of the OD program following its implementation used information available from their unique management vantage points in the organization. For example, the Manager of Marketing used knowledge that the sales force was using the new emphasis on

customer service in presentations to potential members and that it was having an impact. The Vice President of Operations used positive information from a survey of patient satisfaction that his department had recently conducted.

Also, in applying the BFM, all forecasters and valuers had different styles of determining information and used different amounts of information. The styles included constructing tables, mentally calculating the number impacted, using the calculator only to determine the value difference, and constructing complex formulas. Individuals at the higher organizational level used more sources of information to determine the value of the OD program. All individuals, forecasters and ex-post-facto valuers, needed to obtain information about the organization from either individuals in the organization or the researcher. For example, the Manager of Marketing obtained information about the output of the OD program from the Vice President of Operations and the researcher. The Vice President of Operations asked a member of his staff about the number of oral complaints.

In observing individuals forecast and value the OD program, the researcher noticed that all individuals expected the values calculated to fall within some range. When the performance value did not fall in this range, the individuals reviewed their assumptions and recalculated the numbers. In some cases, adjustments were made and in others, it was determined that the range had been low.

Summary

The BFM is a decision making tool. This research further supports the BFM as a valid forecasting method. Specifically, this research has compared the amount of benefits from an organization development program in a health organization against the benefits that would have occurred with no program. This research also supports BFM use in predicting the value of changes in knowledge worker behavior in a service industry. And, the research supports BFM use in predicting benefits from quality changes. The actual benefit of the OD program determined by the research was over $4,500,000. Using the BFM, each of the forecasters was able to forecast a large benefit from investing in the organization development program. The forecasted benefits ranged from $138,800 to $3,900,000.

The advantages of using this tool at the HO included

1. It required the forecasters to be oriented to the organization's outputs which would be impacted by the OD program,

2. It required the forecasters to assess the variables associated with the OD program, and

3. It served as a vehicle for forecasters to compare their perceptions of output variables with others in the organization.

It appears from this study that an individual's vantage point in an organization impacts on the magnitude of the perceived performance value. One

cause of this may be that individuals at a higher organizational level use more information sources when determining the value.

Because vantage points are critical, all options should be compared from the same vantage point (i.e., policy, strategy, tactical). If the same option is chosen by forecasters at different levels, then it clearly is the choice from among the options.

Also, when forecasts are made, the information on which they are based must be reviewed to ascertain that all benefits and costs of an option are included. Review of the benefits by a higher level provides broader perspective.

Recommendations

Further work needs to be done on the Net Performance Calculation Work Sheet to make it easily applicable in situations where the goal of the program is group change, and in situations where the product is not a one time sale item (i.e., the annual membership).

Also, as the BFM reaches a form for general dissemination and use by the profession, a series of prompts should be developed to help individuals discover the answers that best describe their organization's view of the issue.

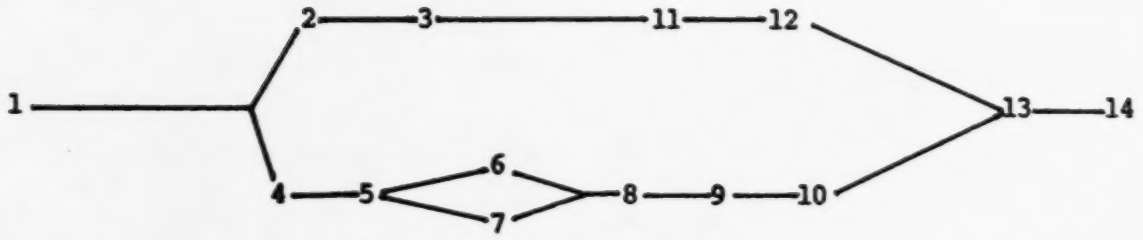
References

Geroy, G. D., & Swanson, R. A. (1984, Fall). Forecasting training costs and benefits. Journal of Epsilon Pi Tau, X(2), 15-19.

Swanson, R. A., & Geroy, G. D. (1983, August). Economics of training. Paper presented at the 12th International Conference of the International Federation of Training and Development Officers, Amsterdam, Netherlands.

APPENDIX A

PERT Chart of Procedures



—PHASE 1—

1. Explaining the BFM to key decision makers of the HO.
2. Gathering the input data the forecasters use to develop their predictions.
3. Identifying the forecasters.
4. Identifying PSS who would serve a data source for identifying and determining the actual outputs of the PSS position.

— PHASE 2 —

5. Interviewing PSS to determine the actual outputs.
6. Identifying the benefits of PSS outputs and determining the cause of the benefits.
7. Determining how the organization expected to value the outputs of the PSS and the OD program.
8. Preliminary testing of the BFM on the HO projects.
9. Determining the actual value of PSS Training and the OD program.
10. Determining the actual costs of the OD program.
11. Instructing forecasters in methodology of BFM.
12. Forecasting the performance value and costs and computing the benefits for both options.

— PHASE 3 —

13. Analyzing the data.
14. Final report

APPENDIX B

PSS OUTPUTS

Answer Questions

This category consists of question answering, complaint resolving and facilitation of system member interactions.

Direct Measures*

T - decreases in disenrollment
T - comfort level of physicians with PSS changes
T - amount of time saved by PSS doing work ($ value) compared to others

Indirect Benefits*

O - P.R. - competing with other HO's
O - Responsibility for quality care is on client
O - pressure release for other staff
O - Motivation for staff improvement
O - role model (how to change)
O - 1 individual gives complex information (less confusion for all)

Make Suggestions for Change

This category includes the changes suggested and implemented by PSS in their individual clinics and the suggestions made by the PSS acting as a group.

O - makes suggestions
T - presented training program for 25 of the clinic staff on dealing with difficult people
O - Ten suggestions in 18 months, two utilized telephone etiquette
O - PSS change things as a group, changes with peripheral organizations (answering services,hospitals,referrals)

Direct Measures*

O - cost reduction
O - decreases in disenrollment

Indirect Benefits*

T - decision makers have another source of information from patient perspective
O - P.R. (HO cares and changes)
O - sets norms limits (outside)

* The "T" preceding measures or benefits indicates that it is attributed to training while the "O" indicates it is attributed to the OD program.

Communication

This category consists of corporate, clinic, corporate member liaisons, and client communications.

The corporate communication consists of measuring information collected for awards, patient service (all PSS)

The clinic communication consists of making patient service suggestions, presenting new employee orientation, writing newsletters and making bulletin boards for the clinic.

The corporate member liaisons consist of meetings with benefit managers.

The client communications consist of member orientation.

Direct measures*	Indirect Benefits*
O - decreases in disenrollment, time saved by PSS doing rather than someone else	O - P.R., motivation of staff, norms, image (the HO is complex system - many options - need orientation) communication

* The "T" preceding measures or benefits indicates that it is attributed to training while the "O" indicates it is attributed to the OD program.

APPENDIX C

NET PERFORMANCE VALUE CALCULATION WORK SHEET

A. Data Required for Calculations

(a) What is the desired performance as a result of worker training? _____

(b) What unit(s) of measure will be used to describe the performance? _____

(c) What is the dollar value that will be assigned to each unit of measure? _____

(d) What is the estimated training time to reach the goal? _____

(e) What is the current level of worker performance? _____

(f) How many workers will participate in the training? _____

B. Calculations to Determine Net Performance Value

(g) What is the estimated performance level during training? _____
Will trainee produce during training?
_____ No = 0 _____ Yes = $\frac{a + e}{2}$

(h) What is the length of the period being evaluated (at a minimum this will be the longest "d" of all options under consideration)? _____

(i) What is the estimate of the total number of units (b) that will be achieved during training? [d x g] _____

(j) What is the estimate of the total individual performance for the evaluation period? [(h - d) x a] + i _____

(k) What is the value for the total performance for the evaluation period? [c x j] _____

(l) What is the net performance value gain? [k - (e x c x h)] _____

(m) Do you want to calculate the total net performance value of all trainees? _____
_____Yes = l x f
_____No = Net Performance Value of one trainee which is value of "1"

APPENDIX D

COST ANALYSIS WORK SHEET

Forecaster _____ Date _____

1. Needs analysis/planning
   - Staff _____
   - External consultant costs _____
   - Materials _____
   - _____ _____
   - _____ _____

   Subtotal $_____

2. Work behavior analysis
   - Staff _____
   - External consultant costs _____
   - Materials _____

   Subtotal $_____

3. Design
   - Staff _____
   - External consultant costs _____
   - Materials _____
   - External support costs _____

   Subtotal $_____

4. Development
   - Staff _____
   - External consultant costs _____
   - Materials _____
   - _____ _____

   Subtotal $_____

5. Implementation
   - Trainee _____
   - Facilities _____
   - Tuition/fees _____
   - Staff _____
   - Materials _____
   - _____ _____

   Subtotal $_____

6. Evaluation
   - Staff _____
   - External consultant costs _____
   - _____ _____
   - _____ _____

   Subtotal $_____

7. Total costs (sum of all subtotals) Total $_____

APPENDIX E

OUTPUTS OF OD PROGRAM

1. Hiring and training 12 PSS.

   Twelve individuals were hired and were given three weeks of training before assuming their duties. The training began on January 9, 1984 and consisted of communication and problem solving, orientation to the HO, learning about benefits, meeting with key members in the organization and initial defining of specific roles in individual clinics. PSS were assigned to all clinics that were open at that time.

2. Setting of job standards and accountability.

   This is for clerical, nursing, x-ray, labs and pharmacy employees. These are the standards for the employee interactions with members. Accountability for these job standards comes from the monitoring process that is part of the Russell K. Lewis Award.

3. Establishment of phone standards for staff working with patients.

   There were no phone standards previously. The standards cover courtesy, percent of calls receiving a busy signal, and length of time that it takes to service a call. These phone standards are also monitored through the Russell K. Lewis Award. The need to meet the standards set led to the installation of new phone lines and systems.

4. Installation of a new telephone system (i.e., more lines).

   The new lines available increased by thirty percent. Also, there was expanded use of direct inward dial where possible.

5. Implementing a new appointment scheduling system.

   This was not done. What occurred was a commitment on the part of the organization to the expectation that all patients who want to be seen today will be seen today.

6. Establishment of the Russell K. Lewis Award.

   This is given twice yearly. Clinics compete earning numerical scores based on how well they meet previously set standards. This award is based on the performance of clerical, nursing, x-ray, labs, pharmacy, and staff. It also includes the performance of physicians, the number of complaints and compliments, phone standards, and the standards for employee interactions with members.

7. Upgrading of a number of clinics (i.e., remodeling).

   This includes a paint up, fix up of the West Clinic, remodeling of Maplewood. It also includes the plans to paint up, fix up Bloomington and Brooklyn Center.

8. Expanded clinic hours.

   This is the plan that starting September 1, all clinics will be open Monday evenings.

9. Improved signs in the clinics.

   The organization modified, updated and standardized all exterior signs at all clinics, enhanced internal signs at remodeled clinics.

10. Instituted training for all employees involved in direct patient services.

    Training was given to physicians, nurses, lab, x-ray and dental. This consisted of two-hour seminars for physicians and one day seminars for others. It included telephone courtesy, effective diffusion of anger, working with the elderly and general verbal communication techniques.

APPENDIX F

STEPS OF THE OD PROGRAM

1. The OD Program. Continuous series of meetings that established Patient Service Working Group. Ended August 1983.

2. January 1984 OD program with entire management structure to get ownership that patient service is everyone's problem. It included sensitization and team building.

3. Hire PSS.

4. Putting into place all of the recommendations of the PSS Working Group. Training in patient relationships for all staff.